Recommended Timing for Transplant Consultation

Intent of guidelines
These guidelines identify appropriate timing of consultation for autologous or allogeneic hematopoietic cell transplantation (HCT) based on disease characteristics.

In many situations, early referral is a critical factor for optimal transplant outcomes. Likewise, delays in referral can reduce success rates for transplant because there may be a narrow window of opportunity to proceed to transplant and delays might preclude transplant altogether. Research data comparing outcomes by disease status can be found at BeTheMatchClinical.org/HCTtiming.

If allogeneic transplant is a possibility, HLA typing of the patient (high resolution) and potential family donors should be completed early after diagnosis, and if no matches are found, a preliminary unrelated donor search of the Be The Match Registry® should be done.

These 2016 guidelines were developed jointly by the National Marrow Donor Program® (NMDP)/Be the Match® and the American Society for Blood and Marrow Transplantation (ASBMT) and are based on current clinical practice, medical literature, and evidence-based reviews.

FREE MOBILE APP
Access these guidelines wherever you are.
Visit BeTheMatchClinical.org/guidelines or search for “transplant guide” in the app stores.
# Adult Leukemias and Myelodysplasias

## Acute Myelogenous Leukemia (AML)

**High resolution HLA typing is recommended at diagnosis for all patients**

Early after initial diagnosis, all AML patients including:
- CR1—except favorable risk AML (defined as: t(16;16), inv 16, or t(8;21) without c-KIT mutation; t(15;17); normal cytogenetics with NPM1 or biallelic CEBPA mutation and without FLT3-ITD)
- Antecedent hematological disease (e.g., myelodysplastic syndrome (MDS))
- Treatment-related leukemia
- Primary induction failure or relapse
- Presence of minimal residual disease after initial or subsequent therapy
- CR2 and beyond, if not previously evaluated

## Acute Lymphoblastic Leukemia (ALL)

**High resolution HLA typing is recommended at diagnosis for all patients**

Early after initial diagnosis, all ALL patients including:
- CR1
- Primary induction failure or relapse
- Presence of minimal residual disease after initial or subsequent therapy
- CR2 and beyond, if not previously evaluated

## Myelodysplastic Syndromes (MDS)

Any intermediate or high IPSS or IPSS-R score

Any MDS with poor prognostic features, including:
- Treatment-related MDS
- Refractory cytopenias
- Adverse cytogenetics
- Transfusion dependence
- Failure of hypomethylating agents

## Chronic Myelogenous Leukemia (CML)

- Inadequate hematologic or cytogenetic response to tyrosine kinase inhibitor (TKI) therapies
- Disease progression
- Intolerance to TKI therapies

- Accelerated phase
- Blast crisis (myeloid or lymphoid)

## Chronic Lymphocytic Leukemia (CLL)

- High-risk cytogenetics or molecular features (e.g., del(11q) or del(17p); ZAP70, CD38 positivity; unmutated Ig VH mutational status)
- Poor initial response
- Short initial remission
- Chemotherapy-resistant
- Richter’s transformation

## Multiple Myeloma

- All patients after initiation of therapy
- At first progression
# Pediatric Acute Leukemias and Myelodysplasia

## Acute Myelogenous Leukemia (AML)

*High resolution HLA typing is recommended at diagnosis for all patients*

Early after initial diagnosis, all AML patients including:
- CR1—except favorable risk AML (defined as: t(16;16); inv 16; t(8;21); t(15;17); normal cytogenetics with NPM1 or biallelic CEBPA mutation and without FLT3-ITD)
- Primary induction failure or relapse
- Monosomy 5 or 7
- Age <2 years at diagnosis
- Treatment-related leukemia
- Presence of minimal residual disease after initial or subsequent therapy
- CR2 and beyond, if not previously evaluated

## Acute Lymphoblastic Leukemia (ALL)

- Infant at diagnosis
- High-risk CR1 including:
  - Philadelphia chromosome positive
  - WBC >100,000 at diagnosis
  - 11q23 rearrangement
- Primary induction failure
- Presence of minimal residual disease after initial or subsequent therapy
- First relapse
- CR2 and beyond, if not previously evaluated

## Myelodysplastic Syndromes (MDS)

- At diagnosis for all subtypes

## Lymphomas

### Non-Hodgkin Lymphoma

- Follicular
  - Poor response to initial treatment
  - Initial remission duration <12 months
  - First relapse
  - Transformation to diffuse large B-cell lymphoma

- Diffuse Large B-Cell or High-Grade Lymphoma
  - Primary induction failure
  - CR1 for patients with high or high-intermediate IPI risk
  - At first relapse
  - CR2 or subsequent remission
  - Double hit (MYC and BCL-2 or BCL-6)—after initiation of therapy

- Mantle Cell
  - After initiation of therapy

### Other High Risk Lymphomas

- After initiation of therapy

### Hodgkin Lymphoma

- Primary induction failure
- At first or subsequent relapse
- CR2 or subsequent remission
# Other Malignant Diseases

**Germ cell tumors**
- Poor initial response
- Short initial remission

**Myeloproliferative Disorders** (including BCR-ABL-negative myeloproliferative neoplasms, myelofibrosis and later stages of polycythemia vera and essential thrombocytosis)

Intermediate or high-risk disease including:
- High-risk cytogenetics
- Poor initial response or at progression

**Juvenile myelomonocytic leukemia (JMML)**
- At diagnosis

**Neuroblastoma**
- Short initial remission
- Poor initial response or at progression

**Ewing family of tumors**
- Metastatic disease at diagnosis
- First relapse or CR2

**Medulloblastoma**
- First relapse or CR2

# Non-Malignant Disorders

**Immune Deficiency Diseases** (including Severe Combined Immunodeficiency syndromes, Wiskott-Aldrich syndrome, Omenn syndrome, X-linked lymphoproliferative syndrome, Kostmann syndrome)
- At diagnosis

**Inherited Metabolic Disorders** (including Hurler’s syndrome, adrenoleukodystrophy, and others)
- At diagnosis

**Hemoglobinopathies**

Transfusion-Dependent Thalassemias
- At diagnosis

Sickle Cell Disease
- With aggressive course (stroke, end-organ complications, frequent pain crises)

**Hemophagocytic Lymphohistiocytosis (HLH)**
- At diagnosis

**Severe Aplastic Anemia and other marrow failure syndromes** (including Fanconi anemia, Diamond-Blackfan anemia, and others)
- At diagnosis

For HCT outcomes data: [BeTheMatchClinical.org/outcomes](http://BeTheMatchClinical.org/outcomes)
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About the American Society for Blood and Marrow Transplant (ASBMT)
The American Society for Blood and Marrow Transplantation (ASBMT) is an international professional membership association of more than 2,000 physicians, investigators and other health care professionals promoting blood and marrow transplantation and cellular therapy research, education, scholarly publication and clinical standards.

Learn more at ASBMT.org.

About the National Marrow Donor Program® (NMDP)/Be The Match®
We are the global leader in providing a cure to patients with life-threatening blood and marrow cancers like leukemia and lymphoma, as well as other diseases. We manage the world’s largest registry of potential marrow donors and cord blood units, connect patients to their donor match for a life-saving marrow or umbilical cord blood transplant and educate health care professionals and patients. We conduct research through our research program, CIBMTR® (Center for International Blood and Marrow Transplant Research®), in collaboration with Medical College of Wisconsin.

Learn more at BeTheMatchClinical.org.